IN THE CLAIMS

What we claim is:

1. Apparatus for hydroenhancing a fabric comprising:

a support surface for the fabric;

a supply of pressurized liquid;

a manifold having a longitudinal axis and having at least one orifice for the discharge of the pressurized liquid, where the orifice

a) has a major axis that is at least one and a half times its minor axis

b) and the major axis of the orifice is not parallel to the longitudinal axis of the manifold

c) and the pressurized liquid emerges from the orifice as a jet directed toward the support

surface; and

means for inducing relative motion between the fabric and the manifold.

2. The apparatus for hydroenhancing a fabric as described in **claim 1** where the manifold has multiple orifices for the discharge of the pressurized liquid.

3. The apparatus for hydroenhancing a fabric as described in **claim 2** where the longitudinal axes of the orifices are perpendicular to the longitudinal axis of the manifold.

4. The apparatus for hydroenhancing a fabric as described in **claim 2** where the longitudinal axes of the orifices are at a non-perpendicular angle to the longitudinal axis of the manifold.

5. The apparatus for hydroenhancing a fabric as described in **claim 2** where the longitudinal axes of the

orifices are parallel and the distances between adjacent orifices are equal.

6. The apparatus for hydroenhancing a fabric as described in **claim 2** where the longitudinal axes of the orifices are parallel and the distances between adjacent orifices are varied.

7. The apparatus for hydroenhancing a fabric as described in **claim 2** where the direction of relative motion between the fabric and the manifold is perpendicular to the longitudinal axis of the manifold.

8. The apparatus for hydroenhancing a fabric as described in **claim 2** where the liquid jets are directed toward the support surface in a direction that is normal to the support surface.

9. The apparatus for hydroenhancing a fabric as described in **claim 2** where the liquid jets are directed

toward the support surface at an angle that is at least 5 degrees from normal to the support surface.

10. The apparatus for hydroenhancing a fabric as described in **claim 2**, where the fabric moves past a stationary manifold.

11. The apparatus for hydroenhancing a fabric as described in **claim 10** where the support surface is flat.

12. The apparatus for hydroenhancing a fabric as described in **claim 10** where the support surface is curved.

13. The apparatus for hydroenhancing a fabric as described in **claim 10**, where the support surface is foraminous.

14. The apparatus for hydroenhancing a fabric as described in **claim 13**, where the support surface has a

first side for supporting the fabric and a second side; and

further comprising means for creating a partial vacuum on the second side of the support surface.

15. The apparatus for hydroenhancing a fabric as described in **claim 1** where

the orifice has a liquid-entry face and a liquid-exit face and has side walls defined by elements connecting the liquid-entry and liquid-exit faces; and

the elements of the side walls are parallel so that the liquid-entry face and liquid-exit face have substantially the same size and shape.

16. The apparatus for hydroenhancing a fabric as described in **claim 1** where

the orifice has a liquid-entry face and a liquid-exit face and has side walls defined by elements connecting the liquid-entry and liquid-exit faces; and

the elements of the side walls are divergent running from the liquid-entry face toward the liquid-exit face so that the liquid-exit face is substantially larger than the liquid-entry face.

17. The apparatus for hydroenhancing a fabric as described in **claim 5** where the orifices have a width from about two one-thousandths of an inch to about ten one-thousandths of an inch (.002-.010 inch) and a length of at least twice their width.

18. The apparatus for hydroenhancing a fabric as described in **claim 17** where the longitudinal axes of the orifices are perpendicular to the longitudinal axis of the manifold.

19. The apparatus for hydroenhancing a fabric as described in **claim 5** where:

the orifices have a width from about two one-thousandths of an inch to about ten one-thousandths of an

inch (.002-.010 inch) and a length of at least twice their width; and

each of the orifices has about the same width and length.

20. The apparatus for hydroenhancing a fabric as described in **claim 5** where:

the orifices have a width from about two one-thousandths of an inch to about ten one-thousandths of an inch (.002-.010 inch) and a length of at least twice their width;

each of the orifices is about the same width; and

the orifices have varying lengths.